Caltrans' Comments on State Route 55 Improvement Project (ORA100511)

Karina's comments are pretty standard: make sure the need for analysis, and what type, is clearly stated (btw, the "new" Final Rule mentioned in the PDF file at page 7 (report page 4) is what? The *rules* for PM analysis have been in place since 2004 so are certainly not "new" -- EPA's guidance for doing detailed analysis changed in 2010, which might be what they refer to (??) but even that's not really "new" -- be a little more precise in references), make sure the alternative that is consistent with the RTP and TIP is clearly identified (the PDF file does not do that), make sure the study area is clearly identified (and no, you can't use the entire region as the hot spot study area).

Here are some more probably picky points:

The construction paragraph on report page 6 (PDF file page 9) should be clarified a bit and CFR reference provided. Because construction will last 3 years (2017-2020), it does not meet the conformity rule's criterion for requiring inclusion of construction emissions in regional and project-level conformity analysis (40 CFR 93.123(c)(5)) -- work will last 5 years or less at any individual site.

In the Analysis Method introduction (starting on p.6), it should be clarified that the methodology used is the 2004 EPA Qualitative Hot Spot Guidance, which estimates the likely effect of a project on localized pollutant concentrations based on emission analysis. The method does not include dispersion analysis which would be required to directly estimate concentrations, and which is used in the 2010 EPA Quantitative Analysis Guidance. Also note that the analysis started (with the date of initial IAC) before December 20, 2012, so with IAC concurrence in the method qualitative analysis was still allowable.

The EMFAC footnote on p.7 doesn't quite get it right. They used EMFAC 2007, which is the correct version for conformity analysis even though EMFAC 2011 was released by ARB on 9/19/11 because EPA has not yet completed its review of EMFAC 2011 and made it available for conformity use. The fact that 2007 was used in the most recent AQMP is not relevant.

On report p. 7 (PDF p. 10), it would be helpful to state whether the monitoring station is up or downwind (based on annual prevailing wind direction) from I-5, and where it is with respect to the project as well.

Karina's comment about describing why opening and horizon years (2020 and 2040) represent the likely highest emission years suggests that the rationale be clarified. Ordinarily, the opening year (highest emission factors) and horizon year (highest traffic volume) are the most likely to have the highest emissions. Traffic growth between those years should be described, however, and if the growth rate is substantially greater than linear in the early (probably first 10) years then another year, perhaps 5 years or so after the opening year, should also be analyzed to capture the effect of rapid early traffic growth.

Should describe how the Orange Co. VMT by speed bin applies to the project -- is there reason to believe that project-specific VMT/speed bin distribution might be different from the county?

Check the road dust method: was the latest AP-42 (see Karina's note) used? Changes were made a couple of years ago in AP-42's paved road dust method that might reduce dust emission estimates compared to the older method. Also, was the Orange County silt loading factor (from ARB) used? It's appropriate to use ARB's local silt loading factor or one from the PM SIPs rather than a generic one assumed in AP-42, with proper attribution. It would be helpful to include an appendix page showing the road dust calculations with reference to the formula and all of its inputs.

Questions related to VMT and dust calculations are aimed at refining the emission estimates. Although the increase from No Project for the various alternatives (which one is consistent with the RTP and TIP?)

is small, it's non-zero, and EPA and project challengers sometimes advocate a "one more molecule" approach. The fact that none of the alternatives reduces emissions compared to No Project is worrying.